

THE CLAIMS

Please make the following amendments:

1. (currently amended) A purified peptide ~~fragment~~ with selective binding to tumor-derived endothelial cells, wherein the peptide ~~fragment~~ possesses a charge motif of positive- positive- neutral hydrophobic (++O), wherein the peptide ~~fragment~~ is not greater than fifty amino acid residues in length.
2. (cancelled)
3. (currently amended) The purified peptide ~~fragment~~ of Claim 1, wherein said peptide is operatively attached to a therapeutic agent capable of exerting a cytotoxic effect on a tumor.
4. (currently amended) The purified peptide ~~fragment~~ of Claim 1, formulated as a pharmaceutical composition.
5. (currently amended) The purified peptide ~~fragment~~ of Claim 3, wherein the peptide attached to a therapeutic agent is capable of exerting a cytotoxic effect on tumor vasculature sufficient to lead to tumor necrosis.
6. (currently amended) The purified peptide ~~fragment~~ of Claim 1, wherein said peptide ~~fragment~~ is linked to a diagnostic agent that is detectable upon imaging.
7. (currently amended) A composition useful for targeting tumor-derived endothelial cells, said composition comprising a peptide selected from the group consisting essentially of SEQ ID NO 1 Cys-Gly-Gly-Arg-His-Ser-Gly-Gly-Cys; SEQ ID NO 2 Cys-Gly-Gly-Arg-Lys-Leu-Gly-Gly-Cys; SEQ ID NO 3 Cys-Gly-Gly-Arg-Arg-Leu-Gly-Gly-Cys; SEQ ID NO 4 Cys-Gly-Gly-Arg-Arg-Ser-Arg-Gly-Gly-Cys; and SEQ ID NO 5 Cys-Leu-Leu-Arg-Arg-Ser-Arg-Leu-Leu-Cys.
8. (currently amended) The composition of Claim 7, wherein said peptide is capable of being operatively attached to a therapeutic agent that is capable of exerting a cytotoxic effect on tumor vasculature.

9. (cancelled)

10. (currently amended) The composition of Claim 7, wherein said peptide is capable of being operatively attached to a therapeutic agent capable of exerting a cytotoxic effect on a tumor.

11. (previously presented) The composition of Claim 7, wherein the therapeutic agent includes at least one agent selected from the group consisting essentially of anticellular agents, chemotherapeutic agents, radioisotopes, and cytotoxins.

12. (original) The composition of Claim 11, wherein the therapeutic agent is an anticellular agent and said anticellular agent comprises a steroid, an antimetabolite, an anthracycline, a vinca alkaloid, an antibiotic, an alkylating agent, or an epipodophyllotoxin.

13. (original) The composition of Claim 11, wherein the therapeutic agent is an anticellular agent and said anticellular agent comprises a plant-, fungus- or bacteria-derived toxin.

14. (currently amended) The composition of Claim 11, wherein said therapeutic agent is a cytotoxin and said cytotoxin comprises an A chain toxin, a ribosome inactivating protein, gelonin, .alpha.-sarcin, aspergillin, restrictocin, a ribonuclease, diphthia diphtheria toxin, Pseudomonas exotoxin, a bacterial endotoxin, or the lipid A moiety of a bacterial endotoxin.

15. (original) The composition of Claim 7, formulated as a pharmaceutical composition.

16. (original) The composition of Claim 9, wherein the peptide attached to a therapeutic agent is capable of exerting a cytotoxic effect on tumor vasculature sufficient to lead to tumor necrosis.

17. (previously presented) The composition of Claim 7, wherein said peptide is linked to a diagnostic agent that is detectable upon imaging.

18. (original) The composition of Claim 17, wherein said diagnostic agent is selected from the group consisting of paramagnetic ions, radioactive ions and fluorogenic ions detectable upon imaging.

19. (original) The composition of Claim 18, wherein said diagnostic agent is a paramagnetic ion, and said paramagnetic ion is selected from the group consisting essentially of chromium (III), manganese (II), iron (III), iron (II), cobalt (II), nickel (II), copper (II), neodymium (III), samarium (III), ytterbium (III), gadolinium (III), vanadium (II), terbium (III), dysprosium (III), holmium (III) and erbium (III).

20. (original) The composition of Claim 18, wherein said diagnostic agent is a radioactive ion, and said radioactive ion is selected from the group consisting essentially of iodine¹²³, technetium^{99m}, indium¹¹¹, rhenium¹⁸⁸, rhenium¹⁸⁶, copper⁶⁷, iodine¹³¹, yttrium⁹⁰, iodine¹²⁵, astatine²¹¹, and gallium⁶⁷.

21. (cancelled)

22. (cancelled)

23. (new) The peptide of Claim 1, wherein said peptide includes a cysteine residue at the amino terminus and a cysteine residue at the carboxy terminus.

24. (new) The peptide of Claim 23, wherein said peptide includes a palindromic amino acid sequence on both the amino side and the carboxy side of said charge motif.